

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the present application.

IN THE CLAIMS:

1. (Currently Amended) A process for producing a peptide or a peptide derivative by using a reaction system of transcribing a DNA into an RNA and then translating the RNA produced or a reaction system of translating an RNA *in vitro* wherein at least one protein component of the reaction system is labeled with a first substance which adheres to a second substance, and said second substance characterized in that a part of all of protein components constituting the reaction system are labeled with one of a pair of substances adhering to each other and the other substance of the pair is used as an adsorbent for capturing said labeled protein components after translating.

2. (Currently Amended) The process for producing a peptide or a peptide derivative as claimed in claim 1, wherein a plural number of combinations of said first and second substances substance used for labeling a part or all of the protein components constituting the reaction system with said substance used as an adsorbent for capturing the labeled protein components are used in the process.

3. (Currently Amended) The process for producing a peptide or a peptide derivative as claimed in claim 1, wherein the protein components labeled with ~~one of a pair of the first substances adhering to each other~~ are a part or all of factors and enzymes for the transcription or translation reaction.

4. (Original) The process for producing a peptide or a peptide derivative as claimed in claim 3, wherein said factors and enzymes for the transcription or translation reaction are selected from the group consisting of initiation factors, elongation factors, termination factors, aminoacyl-tRNA synthetase, methionyl-tRNA transformylase and RNA polymerase.

5. (Currently Amended) The process for producing a peptide or a peptide derivative as claimed in claim 1, wherein the protein components labeled with ~~one of a pair of the first substances adhering to each other~~ are the factors and enzymes for the transcription or translation reaction and other enzymes required in the constitution of the reaction system.

6. (Original) The process for producing a peptide or a peptide derivative as claimed in claim 5, wherein said enzymes required in

the constitution of the reaction system other than the factors and enzymes for the transcription or translation reaction are selected from the group consisting of enzymes for regenerating energy in the reaction system and enzymes for hydrolyzing inorganic pyrophosphoric acid formed during the transcription or translation reaction.

7. (Original) The process for producing a peptide or a peptide derivative as claimed in claim 1, wherein the reaction system for transcribing a DNA into an RNA and then translating the RNA produced or the reaction system translating an RNA *in vitro* is free from termination factors.

8. (Currently Amended) The process for producing a peptide or a peptide derivative as claimed in claim 1, wherein a pair of said first and second substances adhering to each other are substances mutually interacting in affinity chromatography.

9. (Currently Amended) The process for producing a peptide or a peptide derivative as claimed in claim 8, wherein the combination of said first and second substances mutually interacting in affinity chromatography is selected from among combinations of substances capable of forming a bond between a protein or a peptide

fragment and a metal ion, a bond between an antigen and an antibody, a bond between a protein and a protein or a peptide fragment, a bond between a protein and a specific low-molecular weight compound selected from the group consisting of amino acids, DNAs, dyes, vitamins and lectins, a bond between a protein and a saccharide, or a bond between a protein or a peptide fragment and an ion exchange resin.

10. (Currently Amended) The process for producing a peptide or a peptide derivative as claimed in claim 9, wherein said combination of first and second substances forming a bond between a protein or a peptide fragment and a metal ion ~~consists of is~~ histidine tag and a nickel complex or a cobalt complex.

11. (Currently Amended) The process for producing a peptide or a peptide derivative as claimed in claim 1, wherein ~~a pair of said substances adhering to each other are said combination of first and second substances is selected from the~~ substances magnetically adhering to each other.

12. (Currently Amended) A kit of protein components for a reaction system for producing a peptide or a peptide derivative by transcribing a DNA into an RNA and then translating the RNA

produced or translating an RNA *in vitro* wherein characterized in
that the kit comprises at least one protein component of the
reaction system which is labeled with a first substance which
adheres to a second substance which is used as an adsorbent for
capturing said labeled protein components after translating and
that said protein component is selected from the group consisting
of enzymes and factors constituting the reaction system a part or
all of protein components constituting the reaction system and that
the protein components are selected from the group consisting of
enzymes and factors which are labeled with one of a pair of
substances adhering to each other.

13. (Original) The kit of protein components as claimed in claim 12, wherein said protein components are selected from the factors and enzymes for the transcription or translation reaction and other enzymes required in the constitution of the reaction system.

14. (Original) The kit of protein components as claimed in claim 13, wherein said factors and enzymes for the transcription or translation reaction are selected from the group consisting of initiation factors, elongation factors, termination factors,

aminoacyl-tRNA synthetase, methionyl-tRNA transformylase and RNA polymerase.

15. (Original) The kit of protein components as claimed in claim 13, wherein said enzymes required in the constitution of the reaction system other than the factors and enzymes for the transcription or translation reaction are selected from the group consisting of enzymes for regenerating energy in the reaction system and enzymes for hydrolyzing inorganic pyrophosphoric acid formed during the transcription or translation reaction.

16. (Currently Amended) The kit of protein components as claimed in claim 12 which comprises an adsorbent as said second substance for capturing the protein components labeled with said first substance ~~one of a pair of substances adhering to each other.~~

17. (Currently Amended) The kit of protein components as claimed in claim 12 which comprises a plural number of combinations ~~or pairs~~ of said first substance used for labeling ~~a part or all of the protein components~~ at least one protein component constituting the reaction system with said second substance used as an adsorbent for capturing the labeled protein components.

18. (Canceled).